

Dallas/Fort Worth International Airport

Clean Air Policy: a comprehensive approach to
reducing airport emissions

A Presentation to
Clean Cities Conference
Philadelphia, PA

May 15, 2001

Environmental Policy

Recognizing its leadership role in
environmental stewardship
for Dallas, Fort Worth and the Region
DFW International Airport
is committed to protecting the environment
by ensuring the environmental quality and compatibility of
its operations,
procurement, energy conservation and development
efforts

Community “Leadership” Role

Convey fundamental beliefs
regarding environmental leadership

Express commitment
to protecting the environment

Ensure ***all*** Airport activities
reflect proper environmental stewardship
across ***all*** environmental mediums

Air Quality Environmental Issues

- ◆ The “DFW Metroplex” was recently designated as a Serious Non-attainment Area For Ozone requiring a new **State Implementation Plan (SIP)**
- ◆ The FAA now requires “**General Conformity**” with the 1990 Clean Air Act Amendments in addition to the National Environmental Policy Act (NEPA)

Noise is no longer the only/dominant environmental issue

- ◆ Capital Improvement Program Projects are subject to General Conformity and the NEPA process

General Conformity

- ◆ FAA began requiring demonstrations of General Conformity in April 1997 as part of the NEPA process
- ◆ General Conformity *currently* requires consideration of both “Direct” and “Indirect” emissions
- ◆ FAA cannot authorize, approve, or support any action which creates air emissions that are not included in the State Implementation Plan (SIP) for air quality

**Failure to conform with air quality emissions identified in the
State Implementation Program “SIP”
will prevent airport development**

Clean Air Policy

- ◆ The Airport Board, recognizing the environmental issues facing the Metroplex, adopted a Clean Air Policy which calls for:
 - ◆ Reducing central utilities plant emissions
 - ◆ Reducing “mobile source” emissions of vehicles operating on or serving DFW Airport and its customers
 - ◆ Developing detailed implementation plans for each fleet of vehicles
- ◆ The Airport Board has already begun the process of converting its fleet of vehicles to “clean vehicles”
 - ◆ “Clean vehicles” are defined as those meeting, as a minimum, California “ultra low emission vehicle” (ULEV) standards
 - ◆ Preference for Electric, CNG or Hybrid (SULEV) whenever available (regardless of cost premium)

Present Alternative Fuel Efforts

- ◆ **Creation of DFW Fleet Vehicle Acquisition Program**
 - ◆ Appointment of Fleet Vehicle Manager
 - ◆ Centralized approval of vehicle procurement
 - ◆ Reduction of fleet size - as appropriate
 - ◆ Trip reduction initiatives - Consolidated Rental Car Facility
- ◆ **Operator awareness / acceptance**
 - ◆ Overcoming past experiences
 - ◆ Education / training
- ◆ **Maintenance/service familiarization**

Present Alternative Fuel Efforts

- ◆ **Application for Congestion Mitigation Air Quality (CMAQ) funding**
 - ◆ Used to offset 80% cost premium of AFV OEM
 - ◆ \$1.0 million received to date
- ◆ **Fuel supply**
 - ◆ On-airport CNG public/private fueling facility
 - ◆ FAA ILEV Program Funding of Electric GSE Infrastructure (\$2.0 million)
 - ◆ Highest number of CNG refueling sites per capita in U.S.
- ◆ **Evaluation of current / future technology**
 - ◆ Field test OEM AFV sedans, pickups, vans
 - ◆ Network with industry, OEM technologies
 - ◆ Limited industry providers

Airport Policies In Support of Alternative Fuel Vehicles

- ◆ **New Ground Transportation Provider Policy**
 - ◆ 50% vehicle fleet conversion within 5 years
 - ◆ Lose “On Demand” Operating Permit
- ◆ **Advocating (TEA-21) funding of private fleets**
 - ◆ Similar to CMAQ program
- ◆ **Encouraging Rental Car Companies to provide alternative fuel vehicles**
 - ◆ TEA-21 Funding
 - ◆ Secondary Market Development
- ◆ **Signed Memorandum of Agreement with TNRCC, Air Carriers and Owner Cities to reduce GSE Fleet emissions by 90% through electrification and other emission reduction initiatives**

CNG and Electric Airport Board Vehicles

- ◆ 13 BUSES - CNG
- ◆ 46 PICKUP TRUCKS - CNG
- ◆ 4 VANS - CNG
- ◆ 4 GRASS MOWERS - CNG
- ◆ 6 SMALL PICKUPS - ELECTRIC
- ◆ 32 SEDANS - CNG

105 Total

ALTERNATIVE FUELED VEHICLES GENERAL CATEGORIES AND NUMBER OF VEHICLES AT DFW

◆ Ambulance	3
◆ Sedans/Station Wagons	86
◆ DPS Patrol *	29
◆ Pickups/Vans	135
◆ Trucks (over 1 ton)	41
◆ Utility Vehicles	26
◆ Buses	49
◆ Construction/Foul Weather Equipment	41
◆ Tractors/Mowers	38
◆ Fork Lifts/Tugs	10
◆ Sweepers	6
◆ Firefighting/Emergency Vehicles	<u>20</u>
◆ Total	484

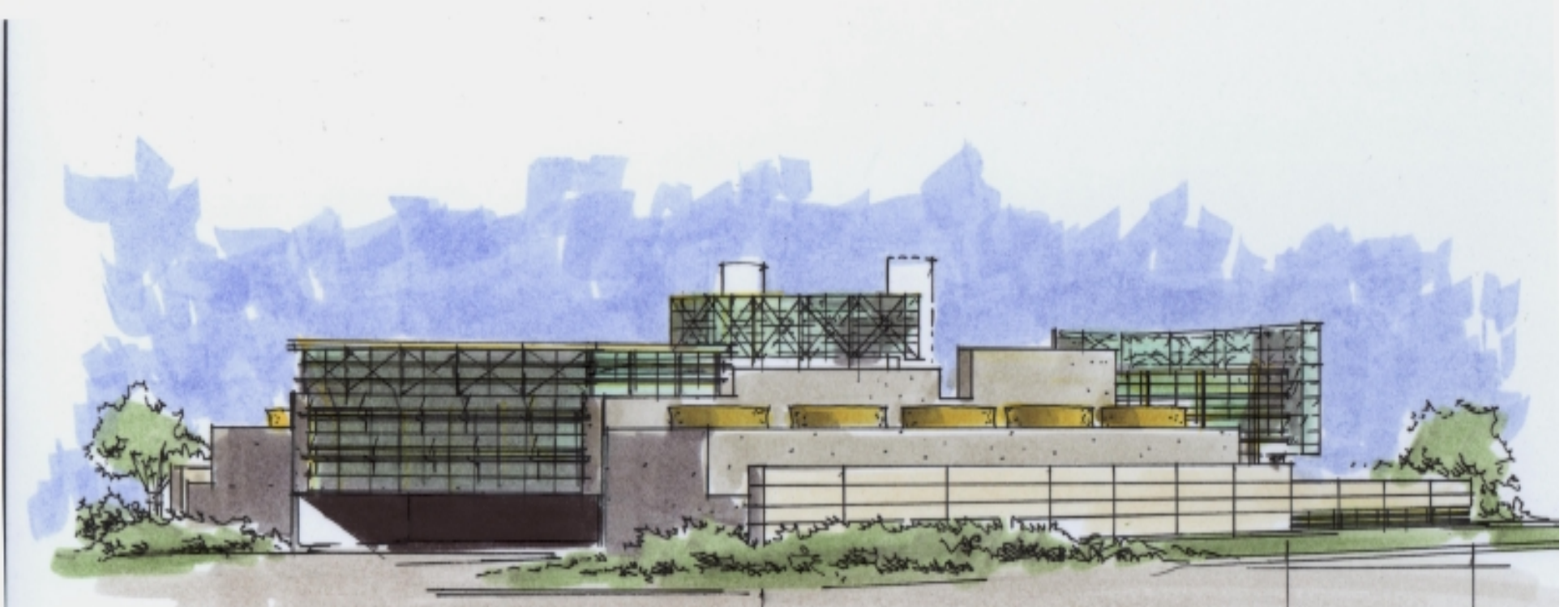
◆ *Includes Armored Personnel Carrier

Alternative Fueled Vehicles Budgeted/On Order

◆ 22	PICKUP TRUCKS - CNG
◆ 5	VANS - CNG
◆ 26	SEDANS - CNG
◆ 53	SMALL PICKUPS - CNG & ELECTRIC
◆ 4	DUMP TRUCKS- CNG/DIESEL BI-FUEL
◆ 1	RUNWAY DEICING VEHICLE - CNG/DIESEL BI-FUEL
◆ <u>33</u>	<u>BUSES - CNG</u>
144	Total

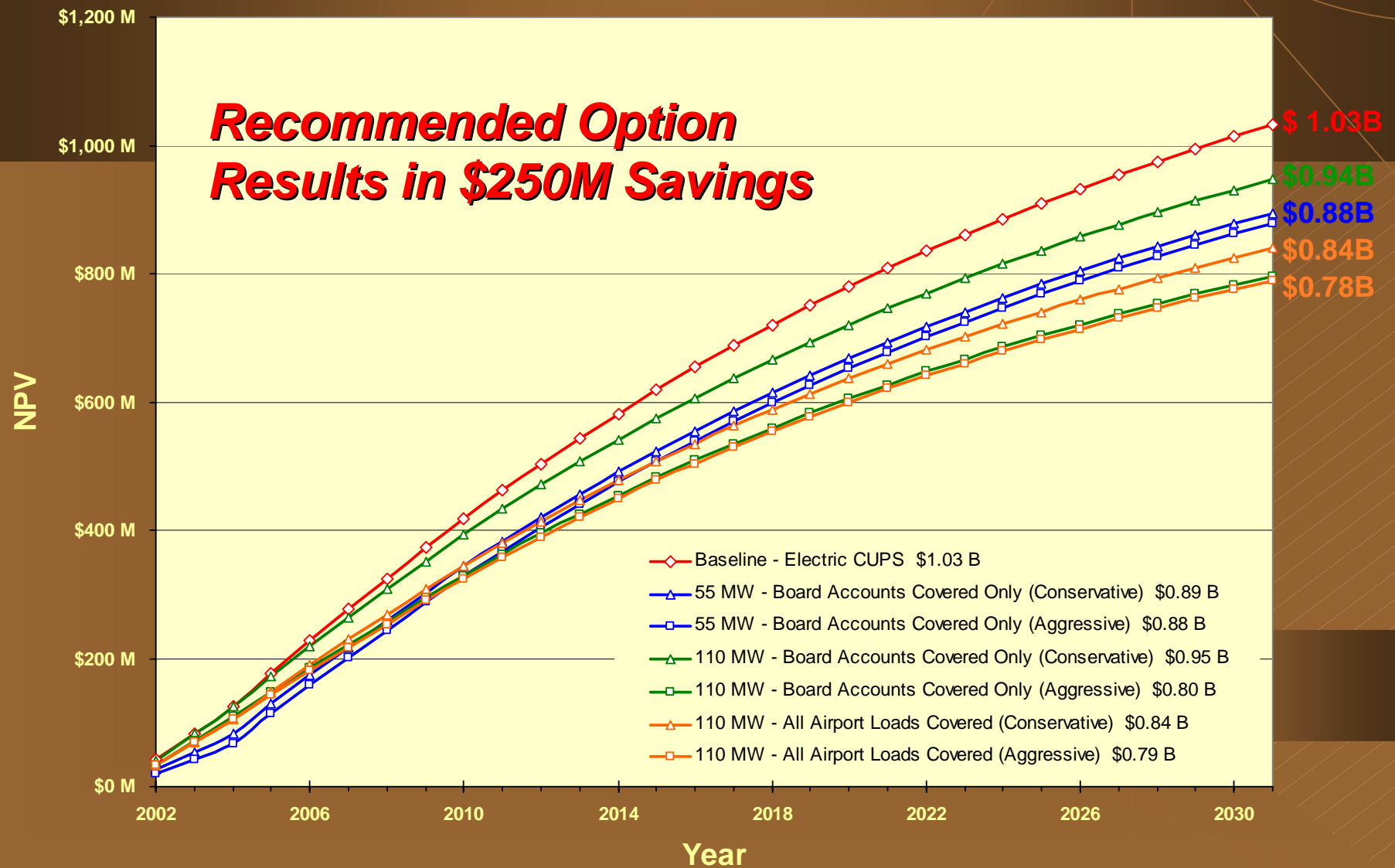
Clean Power Generation

- Reduce Emissions
- Positioning for Electric Utility Deregulation
- Reduce Airport Board and Customer Utility Costs



Benefits of Electric/Thermal Generation

Comparison of Life Cycle Costs:



Emission Reduction Benefits

DFW Airport Emission Reductions Regional Impact, 110 MW Plant:



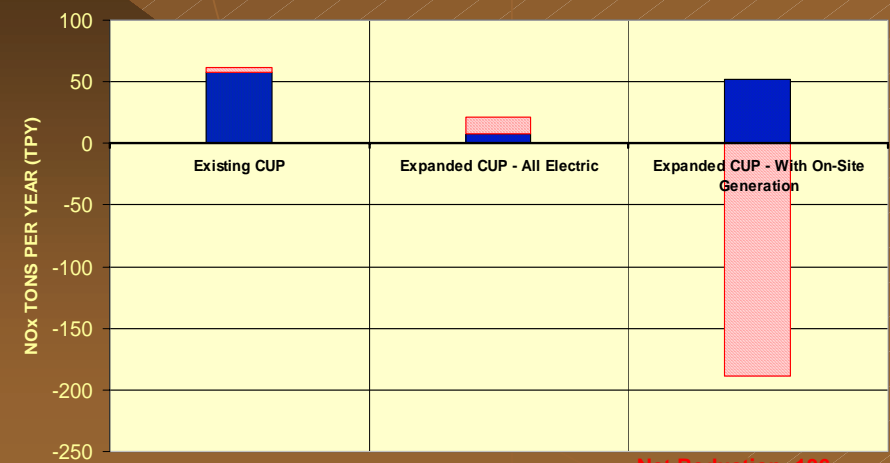
Net Reduction: 1454 TPY

Senate Bill 7 Emissions Reduction Requirement



Net Reduction: 701 TPY

TNRCC SIP Mandated Reductions 2005



Net Reduction: 136 TPY

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